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Innovation Processes in Large-Scale Public Foodservice– Case Findings from the Implementation of Organic Foods in a Danish County

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ABSTRACT. Following the declaration adopted at the 1992 World Summit held in Rio de Janeiro, many governments have committed themselves to a common political goal of sustainable development. The declaration points out that both production and consumption patterns have to change in order to reach this goal. Since, in social and environmental terms, one of the most important areas is the production and consumption of food, some European governments have drawn up action plans setting out concrete goals for the conversion of arable land from

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conventional to organic production. One of the notable emerging areas is the idea that large-scale foodservice such as hospital foodservice should adopt a 'buy organic' policy owing to their large consumption volume.

Whereas the implementation of organic foods has developed quite smoothly in smaller institutions such as kindergartens and nurseries, the introduction of organic foods into large-scale foodservice such as that found in hospitals and larger residential homes for the elderly, has proven to be quite difficult. One of the reasons for this is the highly complex planning, procurement and processing procedures pursued by such facilities. Against this background, an evaluation was carried out of the change process related to the implementation of organic foods in large-scale foodservice facilities in the county of Greater Copenhagen in order to study the effects of such a change. Based on the findings, a set of guidelines was developed for the successful implementation of organic foods into the large-scale foodservice. However, the findings and guidelines are applicable to other types of innovation processes in foodservice.

KEYWORDS. Organic foods, foodservice, catering, organic conversion, public food procurement (note that the terms foodservice and catering are used interchangeably)

INTRODUCTION

Organic foods now represent a significant share of the food consumption in western European countries, and within the foodservice sector organic foods have become a well-known phenomenon in many countries (Eyhorn & Oberle, 1997; Laberenz & Naatz, 2000; Spiller, Lüth & Enneking, 2003; Mikkelsen, Kristensen & Nielsen, 2002; Rimmington, 2003). The idea that the public should lead the way as a role model and buy organic foods has obtained support in many countries (Rech, 2002). Also, the first European EU action plan for organic food and farming aims at promoting the purchase of organic food specifically to public institutions (EU Commission, 2004).

Whereas organic conversion has developed quite smoothly in smaller institutions, the introduction of organic foods in large-scale foodservice has proven to be quite difficult. Part of the explanation seems to be that

large-scale foodservice has very complex planning, procurement and processing procedures (Elle, 2004). In addition, the consumers, including many elderly clients, are often very vulnerable and their nutritional requirements very strict. Another pressure on modern institutional foodservice is that the sector seems to be influenced by an "industrialisation" trend. This trend has resulted in foodservice acquiring new methods of food processing technology such as centralised production, large-scale equipment, consistent heat treatments and sophisticated packaging (Creed, 2001; Zinck, 1995).

However, another explanation could be that modern large-scale institutional foodservice seems to be lacking the innovative power necessary for meeting future demand and expectations of the environment in an efficient manner (Gabriel, 1988; Mikkelsen, 2004). Also, as many traditional foodservice operations are organised as in-house foodservice departments, they operate on the periphery of the parent organisation, adding to the difficulties of the foodservice unit to adapt to change.

Since a number of studies (DFFE, 2004) point to the fact that implementing organic foods seem to have rather significant effects on the way foodservice is organised and run, these processes are likely to have an effect on the foodservice organisations' preparedness for change. These studies also indicate that stakeholders involved in conversion participate in the projects for a number of different reasons and that organic food does not always play the primary role. All in all, it seems that implementing organic foods in foodservice might be quite a complicated organisational process that might lead to unexpected, but positive, ramifications and spin-offs. Since organic conversion processes have involved almost one third of the institutions (Mikkelsen, Pedersen & Therkildsen, 2004) and since nearly half (48%) of the Danish municipalities have been running projects using organic foods (Nielsen, Kristensen & Mikkelsen, 2002), the organic trend might have important implications for the innovative power of the large-scale institutional foodservice sector.

Against this background, a study was carried out to look at the effects of organic conversion as well as the way the organic conversion process affects foodservice organisation and its functioning. The paper explores the organic conversion process as seen from the foodservice point of view.

PURPOSE

The primary purpose of the study was to look at how organic foods are implemented and managed in large-scale public foodservice systems in a Danish county. A second purpose was to study how the process affects the

overall way in which foodservice is run and organised in order to identify the possible spin-off effects that organic conversion might have.

Based on the findings, the paper discusses how organic foods can be implemented and managed and discusses how the possible spin-off effects of organic conversion can be obtained.

METHODOLOGY

The study was carried out in Copenhagen county and its hospital foodservice production units were used as a case study. Copenhagen county is responsible for the operation of four hospitals, including their foodservice operations, as well as a large number of other foodservice operations in other types of institutions. The four hospitals comprised three large hospitals and one smaller one as shown in the overview found in Table 1. Since all hospitals, despite their difference in sizes, share a number of common characteristics, and since management is coordinated across all hospitals, all four institutions were included in the study. All other minor institutions participated in the conversion but were omitted from the current study.

The organic conversion process began in Copenhagen county in 1995 when, helped by a grant of 250,000 ECU, the county decided that its foodservice operations should begin using organic foods. The conversion aimed at substituting organic foods primarily for basic high-volume foods.

The study was supported by three different rounds of data production. The first two were conducted by DTU and the last by DFVF. The final analysis was conducted jointly by both partners.

The *first round* focused on the phase in which the project was established. A pre-study was defined and implemented by the county council and DTU

TABLE 1. The table shows the key figures for the four hospital foodservice operations involved in the case study.

Hospital	Meals/Day			Hospital size	Personnel	Procurement
Name	Breakfast	Lunch	Dinner	No. of beds	Food-service employees	Budget 1000 ECU/Year
Glostrup	1430	1430	1430	1200	82	1928
Gentofte	1120	1120	1120	943	105	1546
Herlev	980	980	980	793	125	1528
Amager	150	150	150	133	20	213

was contracted by the county's department for environment and engineering as a consultant to conduct an initial assessment of the institutional kitchens' preparedness to handle organic food. As a result of this assessment, a basis for decision-making was developed including an action plan containing a set of scenarios. Also included in the action plan were methodological suggestions to fulfil the scenarios.

The information produced in this first round was produced by means of (semi-structured) interviews with key stakeholders as well as by means of a questionnaire-based study among catering managers in the county. In addition, the first round included two seminars involving an internal working group of catering kitchen managers and purchasers. These seminars were conducted as a combination of group interviews and explorative dialogues.

The *second round* of data production is connected to the two-year pilot project that was adopted by the county council on the basis of the above-mentioned study. In this phase, 8 institutional kitchens were selected from a total of 15 which showed interest. As was the case with the pre-study phase, the two-year pilot project was managed by the county's department for environment and engineering. At this stage, a taskforce comprising representatives from the participating institutional kitchens was established by the department. This group was instrumental to the fact-finding and design of the specific and individual assessment of potential benefits of and obstacles to conversion to organic food in each kitchen.

At this stage, a number of representatives from these kitchens were interviewed. In addition, seminars attended by representatives from the kitchens were organised. The themes of these seminars covered both internal issues and experiences, as well as external experiences and inspirations. Examples of these themes include the exchange of existing experiences with organic products in the participating kitchens, external "lectures" by suppliers of organic food and organic semi-prepared food and "lectures" by specialist organic catering consultants. Information contained in reports from a number of these seminars and meetings were used in the analysis of innovation processes in public foodservice. Further reports and notes from planning meetings and evaluation meetings and, thus, documents and minutes from administrative units, political committees, etc. also contributed important information to the second round of data production.

The *third and final round* of data production was conducted by DFVF in 1999 and was based on qualitative methodology. Three types of stakeholders took part in this process, namely 4 *food service managers*, 2 *procurement officers* at county administration level and 4 *foodservice suppliers*.

The foodservice managers were interviewed individually by telephone using an open-ended interview guide which had been sent to the interviewees

beforehand. The interview guide was structured around the following four themes: the outcome and effects of organic conversion, product-related as well as organisational barriers to implementation, workload and operational procedures, and food quality and supply aspects of organic food supply.

To further substantiate the interview findings and, since the implementation process had been developing into a group process involving all foodservice managers from the hospitals, a final focus group interview was conducted among foodservice managers at the end of the process. Eight catering managers and assistants participated in this interview.

Interviews with *procurement officers* were conducted as telephone interviews using an open-ended interview guide made available to the interviewees beforehand. The guide was centred around the following themes: procurement contracts, quality requirements for organic food and procurement policies.

Interviews with suppliers were conducted as telephone interviews using an open-ended interview guide sent to the interviewees beforehand. Since suppliers were not willing to participate in any group processes with potential competitors, these interviews were conducted individually. The interview guide was divided into five themes: characteristics of suppliers and supply situation of product groups, use of procurement contracts and supply logistics, product chain networking and organic food and innovation processes.

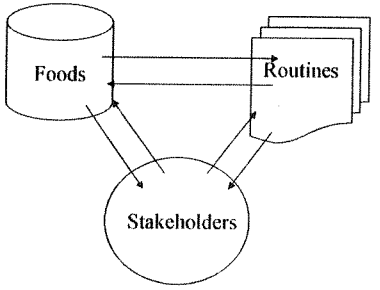
All interviews were taped and subsequently transcribed in full under the headings used in the interview guide. The results were then coded and refined in a series of steps, resulting in a food, routine and stakeholder model as shown in Figure 3.

RESULTS

Although the project aimed at full conversion to organic foods, it only resulted in organic food being implemented at the county hospitals to a certain extent. The percentage of organic food reached at the end of the project period was 72%, 40% and 31% respectively calculated on a weight/volume basis (Mikkelsen, 1998). These results fully support the results from other conversion processes. In the case of Western Zealand county, Agger, Hansen, Leth, Mundt and Sorensen (2004) reported that organic food obtained a share of 50% of food purchased.

The limited level of success is due to the fact that when organic foods are to be implemented in a complex organisation such as a large-scale hospital foodservice system, the complicated matrix/network of food, routines and stakeholders has to be changed. Moreover, these three important elements interact with each other as illustrated in Figure 1. The findings point to the fact

FIGURE 1. The figure illustrates the complicated interactions taking place between foods, routines and stakeholders when organic food is to be implemented in a complex organisation such as a large-scale hospital foodservice system.



that the conversion process involves changing a large number of routines and procedures, which may have serious effects on the daily life of different staff groups. But the results also showed that different stakeholders have both positive and negative associations with a conversion to organic food.

The interviews revealed that implementation of the use of organic food can best be understood as a process in which a number of stakeholders change operational procedures and routines in their attempt to implement organic food or groups of foods.

The new foods are now influencing menus, and, thus, procedures, and as a result, also the daily routines of stakeholders. In addition, the routines are also influenced by stakeholders.

In this way, a triangular model can be drawn up in which foods, routines and stakeholders make up the elements and in which all three components influence each other. The interdependency is illustrated in Figure 1.

Foods

Since organic food conversion aims at implementing organic food to the largest possible degree, the food itself plays an important role in the conversion process. This paragraph presents the findings related to the food.

An important issue related to the *price premium* of organic products. Since public foodservice is very dependent on limited budgets, even a small increase in expenditure can be critical. Organic food in the project was reported to have cost up to 70% more for meat, with a reported average increase of 30%. Given the demands for cost-effective operation, the price premium seems to be a major obstacle.

Criticism was raised by the catering managers about the fact that no extra funds were made available by the municipality to cover the extra cost. In some cases, interviewees expressed concern over the fact that the limited budget available had to be spent on organic food when extra labour resources were equally important, which indicates just limited support for the basic conversion idea.

The supply problems concerned the *processing levels* of organic products. Foodservice staff argued that the highly specialised production flow in large-scale foodservice is dependent on food having a maximum convenience level. The fact that organic food did not reach the processing level that specialised modern hospitals require was seen as a major barrier. The organic food on the market was mostly available in unprocessed versions, thus forcing the kitchens to implement their own pre-processing of foods and to find extra labour resources for such processing.

Also, the *package sizes* of organic products seemed to be a problem. Since organic products are in a development phase and have been targeted mostly at the retail level, organic products in large foodservice-size packages are still rare. Instead, the participating food service units were forced to handle small retail-size packages. A number of interviewees complained about the fact that the quality of the organic food was not necessarily as good as what they were used to. Many foodservice professionals raised this issue as a major obstacle.

Routines

Since organic food symbolises a significant shift in the range of products and raw materials, it is not surprising that a number of well-established routines are jeopardised in the conversion process.

This concern again relates to the *security of supply*, which is a critical issue. Since organic products are still in a developmental phase cancellations of orders are still common, but, nevertheless, very critical for public foodservice. Most foodservice operators raised this critical issue. Hospital foodservice is responsible for a 24-hour foodservice to patients, of whom some are in a critical condition. In addition, menus are planned well in advance, making it difficult to cope with last minute cancellations. Therefore, the cancellation of orders is critical. Cancellations were especially a problem with some alternative suppliers who were not yet familiar with the conditions in foodservice.

Another issue which raised concern was the *procurement supplier interface*. Many suppliers were concerned with the small amounts of food that the foodservice operations ordered at the beginning of the project. The foodservice professionals, for their part, complained that it was difficult to obtain the products in quantities and at a quality which suited the technological environment

found in a foodservice kitchen. In general, they raised the point that it was difficult to maintain a professional dialogue with suppliers about organic food. The traditional suppliers who offer organic food as a supplementary range were criticised for not being alert to the demand for organic food in foodservice.

The *seasonality* of organic foods was another critical issue in the conversion process. Organic vegetables could not be procured processed or frozen and thus had to be procured fresh and in accordance with the season of that particular vegetable. This seasonality caused problems, since large-scale foodservices normally maintain a menu planning system that is independent of the season. Furthermore, the seasonal produce was not suitable and did not meet the required level of convenience, according to the foodservice employees.

It was also clear that the very strict and specialised *menu planning procedure* used in hospital foodservice should be taken into account. In many cases, the purchasing manager complained that it was difficult to introduce organic food at the right quantity to the complicated menu planning process and at the same time be sure that the products would arrive on time.

The results showed that one of the most important conditions for being able to develop new routines was for *in-service training* opportunities to be made available to staff. Because organic conversion involves radical changes in fundamental routines, it is highly relevant and necessary to link conversion with in-service training. The results indicate that it is important to set aside time, resources and replacement manpower for these purposes.

The results also indicated that it is important to gather ideas and inspiration from other projects. One way to achieve this is through *network* activities with other practitioners. Other ongoing conversion projects can also be a valuable source of information, as well as a source of communication with the practitioners and the consultants involved.

Stakeholders

As the model suggests, organic conversion is a very visible process and cannot be carried out without the involvement of a number of stakeholders, so it is important to take these stakeholders into account in the conversion process. The process showed that three types of players were of particular importance in the conversion process, namely the foodservice, the suppliers and the county.

The attitudes of the *foodservice* staff towards organic food were highly dependent on the individual, resulting in both positive as well as negative attitudes. The same differences were found among the foodservice managers. Not surprisingly, the results indicated that the success of the implementation was dependent on the attitudes of both staff and management. In one case, the

develops and expands into the foodservice organisation. In the *operational phase*, the results of the intervention should be made sustainable.

The project phase is characterised by chaos since foodservice is moving into unknown territory. Very few questions have been answered at this point, and solutions have to be developed. In the project phase, an experimental approach should be taken since no standard operational procedures are yet available. In the routine phase, however, achievements should be built into the standard operational procedure of the kitchen.

The results show that two different strategies for the implementation of organic foods are available–conversion and substitution. The substitution strategy has so far been the traditional approach, and it assumes that organic food can be introduced without further changes in the organisation. A historical development of this approach has taken place from simple substitution projects in the early nineties to conversion projects later in the decade. The Copenhagen case, as well the Western Zealand case (Agger et al., 2004) show, however, that the substitution strategy is insufficient and that the conversion approach to organic food in foodservice is the only way forward.

Characteristics of the *substitution* approach are that it can be implemented virtually without publicity and it is reversible. This strategy entails simply substituting organic alternatives for conventional foods without any further changes in the foodservice operation. But since organic foods involve a price premium and since many organic foods cannot be purchased at the same processing level as conventional ones, successful implementation requires more drastic changes in the procurement, planning and processing routines in the foodservice unit.

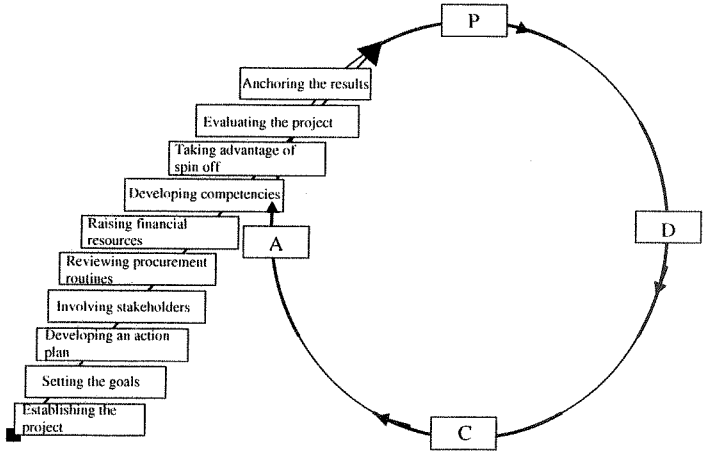
This dilemma has created a need for a more holistic approach–the *conversion* strategy. The characteristics of the conversion strategy are that it involves changes in the structural conditions, including processing purchasing, and that it involves a number of stakeholders and players.

The results of the study have so far not been treated with reference to the differences between the hospitals. But as shown in Table 1, there are considerable differences between each case. For example, productivity varies considerably from hospital to hospital due to differences in the hospital foodservice configuration.

IMPLEMENTATION MODEL

Based on the findings, 10 steps to implement the use of organic food are presented in Figure 3.

FIGURE 3. To the left, the figure illustrates the different "experimental" steps that the organic conversion process goes through in the project phase. To the right, the results from the project phase enter into an operational phase where an organisational framework for making the results sustainable should be in place. The PDCA cycle by Deming (2000) is used as the model to help the organisation to set goals in the *planning step*, to carry out necessary actions in the *do step*, to check the operation of the system in the *check step* and finally to act and adjust in the *act step*



1. *Establishing the project.* Establishing the project is a complicated process requiring expertise, skills and methods that are not normally present in a foodservice organisation. These skills might be present at the administrative level, and it is important that the methods are applied to the conversion process. Project establishment involves appointing a secretariat and project manager.

All stakeholders, who will be affected by the conversion process within the institution, should attend the initial project start-up meeting. At this meeting stakeholders should be able to express their expectations–and time should be set aside to discuss these expectations and to reach a common understanding of the tasks ahead. These expectations should be expressed in a policy.

2. *Setting the goals.* Since the supply of organic food varies considerably depending on the season and availability, it is important to define and adopt a conversion strategy that takes this into account. Setting a concrete goal in terms of the amount of organic food, makes it easier to evaluate the process afterwards. Since the overall aim of the project is to introduce organic food,

an important measure of success is the degree to which organic foods are implemented.

The project and its possible problems and perspectives should be analysed, and project plans covering the tasks ahead should be discussed and adopted.

It is important here to draw up a realistic plan for the introduction of organic food. A step-by-step introduction is the most realistic plan. This approach moves from a situation in which the kitchen evolves from using several organic raw materials in meals, to the preparation of entire organic meals and finally towards the organic certified status. According to Virkkala (2004), organic conversion in Finland has had good experience with this approach.

3. *Developing an action plan.* The purpose of the action plan is to specify how the goals are to be reached. Since organic food cannot be supplied instantly from one day to the next, it should be introduced into the foodservice operation in a number of steps. Initially, the foodservice unit will be in a situation in which it uses only a few organic ingredients daily. These ingredients will often be basic products with a low price premium, e.g., organic potatoes, milk or flour. As availability improves, the foodservice can introduce a moderate amount of organic ingredients.

When availability allows, and if a 100 percent conversion is the goal, the foodservice unit should finally reach a situation in which organic foods are the rule. This situation will allow the foodservice unit to prepare for organic certification. A person responsible for different tasks in the project will need to be appointed. The different participants in the project and their institutions must be aware of their responsibilities.

4. *Involving stakeholders.* A number of different stakeholders play important roles in conversion. Therefore, identification of the players is important. Knowledge of their motivations, values and beliefs is also important. The advantage of involving stakeholders based on an analysis of their expectations is that it increases the chances of stakeholders taking ownership of the conversion.

It is important to be aware that operational procedures in foodservice have implications beyond the foodservice operations. The procedures in the foodservice area are embedded in procedures that also involve the institution as such as well as the county. The interplay between the three levels of the hierarchy is important. Since organic conversion processes are often initiated at the political level, equal cooperation between these partners is important. It is also important for the institutional levels to be involved.

Also, stakeholders outside the field of core players must be identified. The institutional level–in this case the hospital management–is important and must therefore be involved.

5. *Reviewing procurement routines.* A conversion process has significant implications for the procedures and flow of food in foodservice, and as a result, procurement must be changed. A review of procurement procedures makes a good starting point, especially since public foodservice procurement depends heavily on contracts and other written agreements. Good cooperation with and involvement of the purchasing coordinators at the county level is essential.

Involving suppliers is especially important because the suppliers have to adapt to the contract based relationships which exist in B2B relations in foodservice. The findings from the projects underline the need for alternative suppliers, which emerge as a result of the organic conversion, to increase their competence in this field.

Discussing the more long-term implications of organic conversion with suppliers is also important. Some of the change procedures resulting from organic conversion encourage new products to be developed and found, which requires close and committed cooperation between suppliers and the public foodservice operators.

Product development is an important issue in organic conversion. Although the organic conversion process might be a good opportunity for foodservice operators to take a closer look at the way food is produced in modern large-scale production kitchens, such operations are dependent on processed foods, i.e. sliced and cut vegetables, pre-peeled potatoes and sliced and cut meat. Thus, a closer dialogue between suppliers and customers is necessary if organic conversion is to succeed. Suppliers must have the patience to let demand develop, and customers must be patient enough to let suppliers come forward. Such dialogue could be promoted through different kinds of network activities, such as meetings, exhibitions, product demonstrations and excursions.

6. *Raising financial resources.* Having a strategy based on the price premium that organic foods cost is crucial. Such strategies can include changes to the menu, promoting cheaper alternatives to existing products. This approach is shown with convincing results by Agger et al. (2004) in the Western Zealand case.

In other cases, good results have been obtained using organic food conversion to implement environmental management aimed at saving resources and waste handling. In some cases (Elle, 2004), organic conversion has been linked to projects aimed at minimising waste and, thus, creating financial savings. Another strategy is to concentrate procurement on the types of foods and commodities that have the smallest price premium. Such foods are foods that have achieved a certain market share, and they include potatoes, cereals, and milk and milk products.

Within the limits that exist in hospitals with regard to the nutritional composition of meals, it is possible to finance some of the price premium by modifying menus. However, this should be done with great care and in close

cooperation with nutritionists or dieticians since hospital patients are in serious risk of developing malnutrition.

7. *Developing competencies.* As the results indicate, the conversion process is a complex change process involving new foods, routines and stakeholders. Thus, it is no surprise that in-service training is important. In fact, it seems that it is the single most important outcome of conversion.

The organic food conversion process is new to most stakeholders, and findings indicate the need to seek information and inspiration. In some cases, it can be relevant to involve consultants with special expertise in conversion. Networks used by other foodservice operators can be a way of finding information, as can study visits to other foodservice sites.

In-service training is an important element. Since organic food conversion involves radical changes in fundamental routines, linking conversion with in-service training is both relevant and necessary. Time, resources, and replacement manpower must be set aside for these purposes.

Demonstration examples from other projects are often a good source of information and inspiration. Information from other projects can be exchanged on a more permanent basis through informal network activities.

8. *Taking advantage of spin-off.* Although the main purpose of the conversion process is to introduce organic foods, it is obvious that large-scale foodservice operators can benefit in other ways from the change process in relation to the organic agenda (DFFE, 2004).

Results from the conversion cases show that the process is a rather complicated organisational change process, but it gives the food service units the opportunity to consider how they can use the organisational change process to develop their competitiveness and performance. Given the complications of conversion, it is not surprising that conversion has become, in many cases, an opportunity for other change. As a consequence, the conversion strategy has shown to be virtually irreversible.

Results also underline the fact that the rate of change, aimed at increasing the competence and ability for foodservice organisations to handle such challenges, is limited and that better knowledge of organisational change processes is needed. Organic food conversion is only one example of the pressures from the outside world forced upon the public foodservice. Thus, change readiness will be in demand.

9. *Evaluating the project.* When the routine phase is over, it is important to prepare for the routine phase, since this phase forms the basis for the permanent implementation of the conversion. For this routine phase to be successful, it is important that problems found in the project phase are solved.

Participants should be given the opportunity to reflect about the conversion and to build those reflections into permanent dialogue. A report, shedding light on the course of the project, is also a very valuable tool in the continued process.

Once the results of the project phase have been evaluated, it is time to make the necessary changes. In this step, it is important that all experiences from the project phase are taken into account because these experiences are the basis on which the routine phase has to be built.

The time of completion of the pilot phase is critical. This is the time when results should be anchored. The novelty value has disappeared during the routine phase, and the organic project has become everyday life. This is the time when the agenda should be able to compete with other agendas. This is the time to ask questions like: how far did the project phase bring us and how far should we aim next year?

10. *Anchoring the results.* The conversion case shows that once the project phase is over, it is important to implement the new routines in the existing operational procedures. This information requires a management system capable of maintaining the outcome of the conversion process–to create sustainable change–and a management system which, at the same time, is able to handle other future challenges and change processes. This observation accords with the experience from other innovation processes in the public health field. Goodman and Steckler (1989) stresses the importance of creating a framework for what is taking place–a mutual adaptation of the innovation–in this case the organic conversion. The innovation should "settle" into the organisation while both the host and innovation change are in interaction with each other (O'Loughlin, Renaud, Richard, Sanchez-Gomez & Paradis, 1998).

The work of Deming (2000) offers a theoretical framework for the kind of activities that are necessary to secure the continuity of organisational processes such as organic food conversion. In Deming's terminology, these steps are expressed in the PDCA cycle as a Planning step, a Do step, a Check step and an Act step.

It is especially important to devote time and energy to the development of routines because this is the phase in which the process and project consultants step back and leave the maintenance to the foodservice department itself. In the public health field, this phase is referred to as the incorporation phase in which the local host organisation gradually assumes entire responsibility for the intervention as the external partners retreat and disengage from the change process (O'Loughlin et al., 1998).

SUMMARY

The introduction of organic food into institutional kitchens influences the menus, the routines in the kitchen and the different stakeholders (suppliers, kitchen staff, civil servants, politicians, etc.) in the food chain. The cases we have analysed show that the conversion process is a complex change process.

Although we are dealing with a relatively new issue, namely the introduction of organic food into institutional kitchens, Deming's "old" PDCA cycle offers good inspiration for an implementation model, involving changes in structural conditions and in relation to central stakeholders.

Finally, two things must be emphasised. *First*, we would like to stress the importance of anchoring the projects when the project moves from the project phase to the routine phase. Experiences of this are up till now rather few, and these few examples are not very successful. Typically, the amount of organic food used in kitchens has declined dramatically. The *second* thing we would like to stress is that although the project we analysed might not have been a success in terms of the amount of organic products sold, it might have been a success in terms of the ability of the institution to tackle future challenges. In a sector undergoing rapid and dramatic changes this ability is very important.

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